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# BARK MULCH



NATURAL ARTISTRY AROUND YOUR HOUSE

UNITED STATES DEPARTMENT OF AGRICULTURE ■ FOREST SERVICE

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Sarles of the Forest Products  
Marketing Laboratory, Princeton, W. Va.



## **BARK MULCH— NATURAL ARTISTRY AROUND YOUR HOUSE**

Make your landscaping more exciting, more colorful, and more beautiful. Use natural forest tree-bark mulch on your flower beds, around your trees and shrubs, on walkways, in playgrounds, or anywhere you can think of to put nature's greatly versatile material to work.

You'll find that laying a carpet of bark mulch brings you many rewards. You'll enjoy the way rustic, russet-colored bark mulch recreates the forest's most

subtle combination of textures and colors right in your own yard. You'll win compliments in your mulched yard's neat, artistic appearance. You'll see your plants thriving in new, rich humus layers. And you, the home gardener, will be able to relax. For in application and maintenance, bark mulch will require only the minimum of time and effort from you, while giving you time off from the normal cares of weeding and watering.





## WHAT BARK MULCH DOES

The use of forest tree-bark mulch in home garden care is a lesson learned from nature. In the forest, plants use fallen bark and other natural debris as a protective coat. By laying bark mulch on your plant soil, you do the same thing—you protect your plants' delicate roots from excessive heat and drought in summer, and help them resist alternate freezing and thawing through the winter.

With bark mulch you also help improve your soil's texture by enriching it with natural humus. Bark mulch improves the drainage of heavy clay soils and improves the water-holding capacity of sandy soils. And it won't crust, blow away, or wash away under normal conditions.

Bark mulch saves you yard-maintenance time. Because it smothers weeds, you do less weeding and you needn't trim grass along borders. Because it prevents packing of clay soils, you do less hoeing. Because it reduces evaporation, you need to water less often. Because it breaks the force of rain, bark mulch will prevent mud splattering on the side of your house and on garden crops. This means you do less cleaning. And because it lasts, you will realize its benefits from 3 to 6 years after your initial application, with the addition of only a minimal amount of new material each year to maintain proper depth.

Bark mulch is 100 percent organic. It is made from the barks of a variety

of forest tree species. It is relatively inert and non-toxic. Tests show that bark mulch will not affect the acidity of your soil in any appreciable way. Nor will it overtax your soil's nitrogen reserves if you follow normal fertilization practices.

Long-lasting bark mulch on permanent beds and borders eliminates weeding and cultivating. Annual top dressing assures attractiveness.

Forest tree-bark mulch is a boon to the home gardener.



## **WHEN TO USE IT**

Use bark mulch around your home to fit your landscape and gardening program:

In the fall, before the ground has frozen, mulch new bulb plantings to protect them from frost heaving and to retard emergence long enough to safeguard them from early spring frosts.

In the spring, mulch newly planted trees and shrubs, topdress lawns, and apply bark mulch to new grass seedings.

In the summer, dress up planting beds, borders, and pathways with a fresh 2-inch application. Apply 4 inches of mulch to beds of flowering annuals and in the vegetable garden.



## **HOW TO BUY IT**

Bark mulch is carried in garden centers, hardware stores, and food markets in a range of types and sizes. It is generally packaged in 50-pound plastic bags containing enough uniformly sized particles to cover an 18-square-foot area with 2 inches of mulch.

You should keep in mind your planned uses when selecting the type and size of bark mulch you will need.

## **HOW TO APPLY IT**

Bark mulch is easy to apply and requires no special tools. To mulch an area for the first time: Remove grass and weeds around your plants and create a 4- to 6-inch border between your flowers or bushes and the edge of your planting bed. This spacing will give a neat appearance and make your lawn easier to cut. Loosen the soil, then spread your mulch. A thick application, 4 inches deep, is most effective for smothering weed growth and for protecting shallow-rooted azaleas and rhododendron.



## WHERE TO USE BARK MULCH

Bark mulch's many uses are determined by type and particle size. Plan your uses carefully.

You might consider placing hardwood and softwood nuggets ( $\frac{3}{4}$  to  $1\frac{1}{2}$  inches in size) and chunks ( $1\frac{1}{2}$  to  $3\frac{1}{2}$  inches) around trees and shrubs and as borders along fences, driveways, and sidewalks, where decorative value is important. Nuggets and chunks are also functional in planting beds.

Smaller-sized bark mulch chips, called "minichips" ( $\frac{1}{4}$  to  $\frac{3}{4}$  inches), are ideal for walkways, for cushioning falls under playground equipment, for decorating artificial flower arrangements,

in pet enclosures, and in picnic and barbecue areas. This size bark mulch might also aid you in transplanting trees and shrubs, since it helps keep soil loose and aerated. Bark mulch chips reduce damage to roots when they are transplanted into new soil.

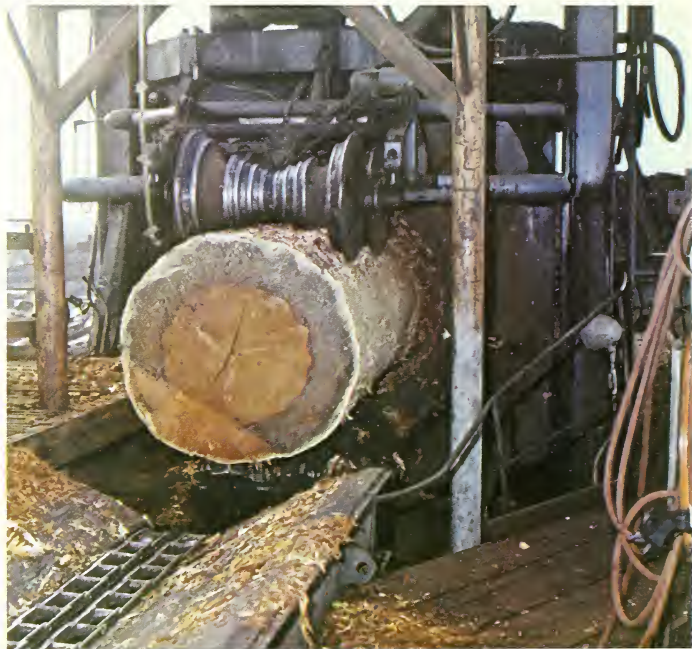
You'll find shredded bark mulch valuable for many uses—among them the mulching of ground cover, planting beds, and grass seeding on steep slopes, where it displays a notable holding capacity.

Besides bark mulch in its variety of sizes, you will often find it with nitrogen and fertilizers added. In this

combination, it is a soil conditioner, especially beneficial as potting soil and as top dressing for lawns, as well as for improving the soil in gardens and flowerbeds.

To use bark soil conditioner for potting and flower boxes, mix two parts of it with one part of soil. For amending garden soils, work into existing soil to a depth of 4 inches. For new lawns, apply 1 inch of the bark soil conditioner over the soil, then till into the soil to a depth of 2 to 3 inches before seeding and fertilizing. Lawns may be topdressed by lightly raking a  $\frac{1}{2}$ -inch application of soil conditioner into the grass.







## **PRODUCING BARK MULCH**

Before a log is sawed and processed into lumber products, it passes through a debarker, which removes the bark. The bark subsequently passes through an industrial hammermill or a shredder. Then the bark is aged. The aging process gives the bark its rich, dark reddish-brown color. After this, it is screened to sort fines from larger chunks; then it is bagged and marketed as mulch.

## **SOLVING AN ENVIRONMENTAL DILEMMA**

The utilization of bark for mulch and soil conditioner represents a practical environmental advance. As much as 15 percent of a tree's volume is bark. Until very recently, the processing of this bark into useful products was considered both costly and unnecessary. Trees taken to the sawmill were first stripped of their bark. While their logs went on to become lumber and products, their bark was cast aside. Because it accumulates quickly (about 1,200 pounds of green bark are by-products of each 1,000 board feet of lumber manufactured), bark presents problems and is a potential fire hazard. Sawmill operators chose their only practical alternative, which was to dispose of the useless and troublesome bark quickly by burning it in tepee burners. Naturally this contributed to air pollution.

To help curtail this air pollution, to make use of this wasted, but good material, and to help foster jobs in rural areas, the USDA Forest Service undertook a research program to study the prospects for utilization of the once problematic bark. In their study, scientists headquartered at the Forest Service's Forest Products Marketing Laboratory in Princeton, West Virginia, determined that among present opportunities for commercial use of bark, mulch holds much promise.

Now, in addition to promoting the processing and use of bark mulch, the Forest Service scientists are continuing their bark research in order to gain information about more new uses for the versatile bark material, and to develop new processing methods for it.



## **INVESTIGATING OTHER USES FOR BARK**

At present tree barks and bark mulches are used commercially in industry and agriculture in many ways. Most of these uses will be expanded as more knowledge is gained from applied research. Bark is carbonized to make charcoal briquettes, compressed to form fireplace logs, and used as a reduction agent in electrometallurgy. Bark is used in extenders for plastics, as additives of oil-well drilling muds, and in particleboards and hardboards.

Nurserymen are growing potted plants in bark-soil mixtures. Landscapers are using bark in construction of golf

greens and in plantings along miles of interstate highways.

Scientists are experimenting with bark fines for growing hothouse vegetables and flowers, bark mulch for revegetating surface mines, bark for fiberboards with superior properties, and bark litter for poultry.

Also under investigation are such things as the use of bark as fuel for power generation, bark extracts for antitumor properties, bark for roughage supplement in livestock feed rations, and powdered bark as an absorber to control mass spillages of oil at sea and in harbors.



Types and sizes of bark mulch

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